SONY

3-810-386-12 (1)

Portable Cellular Telephone with Accessories

Operating Instructions

CM-RX100

© 1995 by Sony Corporation

Before operating the CM-RX100 Portable Cellular Telephone and its associated accessories, please read this manual thoroughly and retain it for future reference.

If your usage includes in-vehicle operation, it is recommended that you refer to the Operation/Installation/Connections manual for the optional accessory kits.

The unit is approved for connection to a cellular radio network run by a network operator.

FCC CAUTION STATEMENT

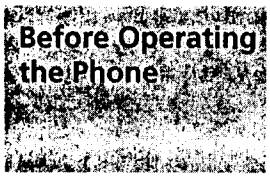
You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Owner's Record

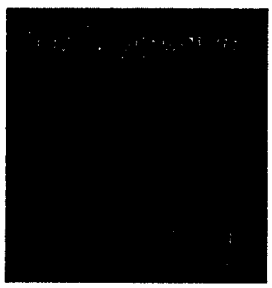
The model number, regulatory number and serial number are located on nameplate inside the battery compartment. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your dealer regarding this product.

Model No.: CM-RX100 Serial No.: _____

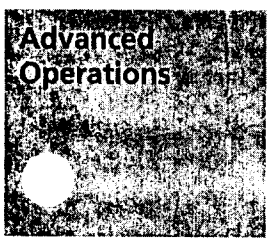
Table of Contents



Features 4
Unpacking Your Phone 5
Looking at Your Phone 6
Charging the Battery Pack 9
About the Lock Code 13

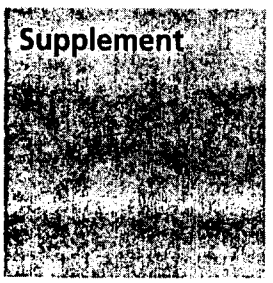


Setting Up Your Phone 14
Making Calls 16
Receiving Calls 19
Displaying Your Own Phone Number 21
Redialing the Last Five Numbers Dialed .. 22
Displaying Upper Numbers 25
Adjusting Volume 26
Using Scratchpad Memory 29



Speed Dialing 30
Sending DTMF 40
Locking Your Phone Automatically 42
Checking the Length of a Call 44
Saving Battery Power (VOX) 48
Selecting the DUAL NAM 49
Selecting an A/B System Mode 50

Other Functions 52



Rules and Regulations 61
Safety Precautions 63
Specifications 67
If You Have a Problem 68
Summary of Operation 69
Function Table 73
Quick Reference 75
Index 77

Features

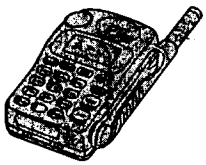
The CM-RX100 is newly designed to meet your personal communication needs using the cellular radio telephone system, and provides many innovative features that make it convenient and easy to use.

- 90 MINUTES CONTINUOUS TALK TIME or 24 hours of standby time thanks to a standard size lithium ion battery.
- ARM MICROPHONE provides a comfortable distance between ear and mouth enabling a reduction in size, making the phone convenient to carry.
- DIAL SHUTTLE FOR EASY USER INTERFACE
- TWO-TOUCH DIALING FUNCTION allows you to call a number stored at the touch of two buttons.
- 99 NUMBER MEMORY allows you to store and automatically dial 99 of your most important telephone numbers.
- PREFERRED MEMORY allows you to show a preferred number in the initial display.
- 11-DIGIT/CHARACTER LIQUID CRYSTAL DISPLAY shows telephone numbers, names and status messages. When only numbers are displayed, the size of numbers increases.

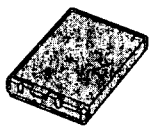
Unpacking Your Phone

Carefully unpack your portable cellular telephone and check the contents with this list. If you have any questions, please contact your nearest SONY Cellular Telephone dealer. (Or in the U.S.A. dial the Sony Cellular Hotline on 1-800-578-7669.)

Cellular Telephone CM-RX100 (1)

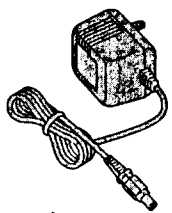


Battery Pack QN-022BP (1)



Battery Charger QN-027BC (1)

AC Adaptor QN-014AC (1)

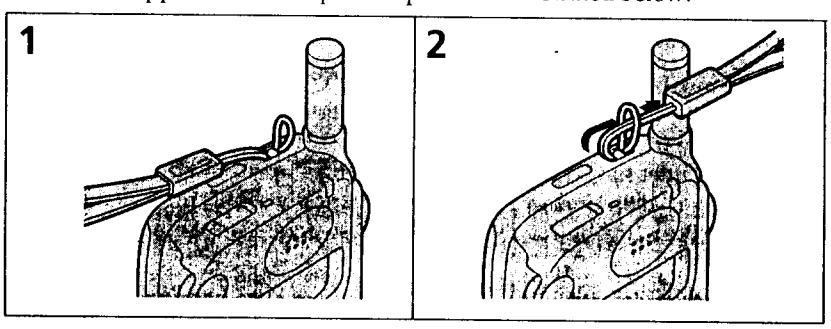


Hand Strap (1)

Operating Instructions (this manual)
Warranty Card (USA only)

Attaching the Hand Strap

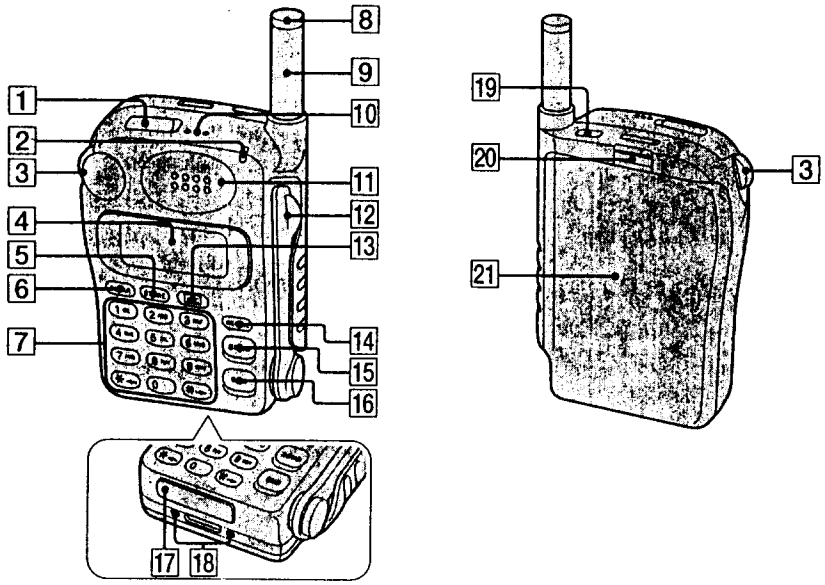
Attach the supplied hand strap to the phone as illustrated below.



Looking at Your Phone

For further information, refer to the pages indicated in parentheses ( ).

Phone



1 POWER switch (14, 15)
Turns your phone on or off.

2 Incoming indicator (19)
Flashes when receiving a call.

3 Dial Shuttle (17, 18, 21-28, 32-60)
Recalls the speed dialing numbers and last dialed numbers when turned up or down in the standby mode.
Press to enter the F(Function) mode, and turn up or down for selection.
Pressing Dial Shuttle for 1 second automatically scrolls the function menu. (Press any button except POWER switch to stop scrolling.)

4 **Display (8)**

5 (STORE) **button (30-32, 38, 40)**
Used to store a phone number.

6 (CLEAR) **button (16, 17, 30, 38)**
Erases the number or letter entered.
Exits the mode when pressed for 1 second.

7 **Number, * and # buttons**

8 **Antenna (14, 15, 64)**

9 **Antenna socket**

10 **Ringer (19, 20, 26-27, 52, 55)**

11 **Speaker (19, 26, 27, 55)**

12 **Arm Microphone (14-20, 22, 23, 34-37, 40, 41)**

13 (ABC) **button (32, 33, 36)**
Used to enter and exit the alphabetical mode.

14 (RECALL) **button (21, 34-41, 57)**
Recalls a stored phone number.

15 (SEND) **button (17, 23, 29, 35, 40-41, 68)**
Used to make a call and also used for conference and interrupt calls.

16 (END) **button (16-20)**
Used to end calls or exit the mode.

17 **Connector**
Connects optional car battery cord or handsfree kit.

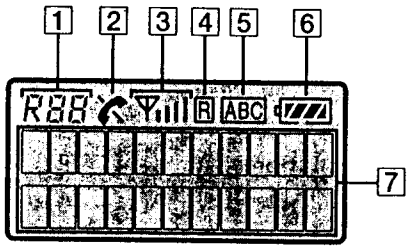
18 **Battery charge contact (10)**

19 **Hand Strap attachment (5)**

20 **Battery cover release button (9)**

21 **Battery cover**

Display



1 Location number display
Shows a speed dialing memory number and also shows a function number in the F mode.

2 (in use)/ (out of service) icon (15-17, 19, 20)
indicates that the phone is in use. indicates that the phone is out of the service area. When appears, you cannot use the phone.

3 Signal strength icon (15)
Indicates the signal strength.

4 R (roaming) icon (50)
Appears when you are roaming.
When R is blinking, you are in the opposite system of your home system.

5 ABC icon (32, 36)
Lights up when pressed for entering alphabets.

6 (battery) icon (12)
Shows approximate amount of power remaining in the battery, in four steps.

7 Numeric display
Shows numbers in 2 rows with 11 characters each. When entering phone numbers, the characters are doubled vertically. The middle line also shows alphabets and messages.

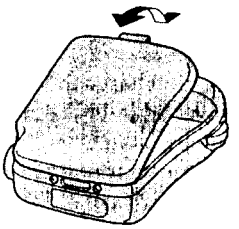
Charging the Battery Pack

Charge the battery pack before using the phone. A new battery pack is not fully charged.

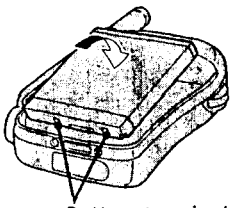
Installing/Removing the Battery Pack

To install the battery pack

1 **Press the battery cover release button and remove the cover.**

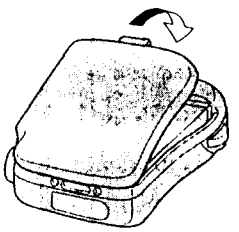


2 **Align the battery terminals with those of the phone and install the battery pack with ⊕ and ⊖ face down.**



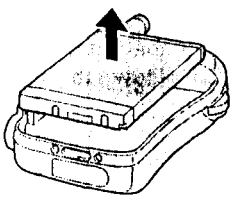
Battery terminal

3 **Align the claws of the cover and the phone and push the cover until the lock clicks.**



To remove the battery pack

Open the cover and remove the battery pack.



Caution

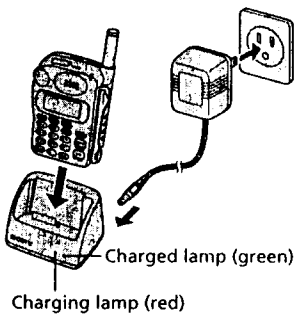
Be sure to install the battery pack with the side labeled with ⊕ and ⊖ face down.

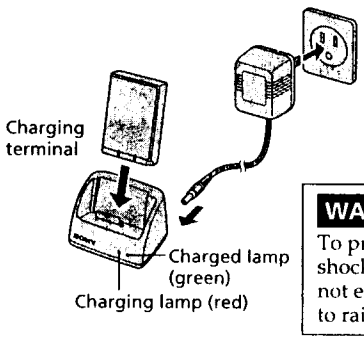
Charging the Battery Pack

You can charge the battery pack with or without the phone. Connect the AC adaptor and charger and place the phone or battery pack.
The charging lamp lights red when charging starts.

Charging time : Approx. 7 hours

When the battery pack is approx. 90% charged, the charged lamp lights green.
You can charge the battery pack with the phone in standby mode. However, it will take a longer time for charging.
While you are charging the battery pack with the phone, the battery icon is only for your reference. It shows approximately how much the battery pack has been recharged.

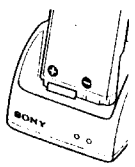




WARNING
To prevent fire or shock hazard, do not expose the unit to rain or moisture.

Notes on charging the battery pack without phone

Align the terminals of the battery pack with those of the charger. Make sure that ⊕ and ⊖ face out as shown. Slide the battery pack down the hollow and press until the charging lamp lights red.Make sure that you do not press down the black tab on the charger.



Caution
⊕,⊖ face out.

Notes on charging

When you charge the battery pack, avoid:

- removing the battery pack from the charger or turning the charger off while recharging (this will affect the recharging cycle).
- charging with the ambient temperature below 32°F (0°C) or over 104°F (40°C).
- charging the battery pack in direct sunlight, or in places with high humidity such as a bathroom.

Notes on the battery pack

- Do not dispose of the battery pack in a fire or short-circuit it (the battery pack may leak, get hot, or cause personal injury).
- Do not try to disassemble the battery pack.
- Do not fail to fully discharge the battery pack before long periods of disuse.

DISPOSAL OF LITHIUM ION BATTERY.

LITHIUM ION BATTERY.
DISPOSE OF PROPERLY.

You can return your unwanted lithium ion batteries to your nearest Sony Service Center or Factory Service Center.

NOTE : In some areas the disposal of lithium ion batteries in household or business trash may be prohibited.

For the Sony Service Center nearest you call 1-800-222-SONY (United States only)
For the Sony Factory Service Center nearest you call 416-499-SONY (Canada only)

Caution : Do not handle a damaged or leaking lithium ion battery.

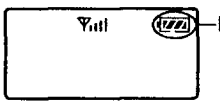
Checking the Battery

Battery duration

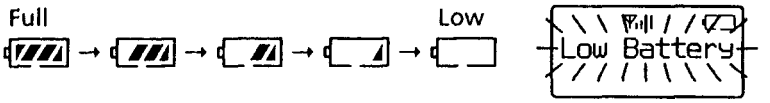
In standby mode	: Approx. 24 hours
In continuous talk mode	: Approx. 90 minutes

Battery condition

You can check the battery condition when the power is on, using the battery icon. You can also check the battery level by a larger indicator for a few seconds when you turn on the power (see page 14).



The battery power is shown as follows in the display.



Battery low alarm sounds and "Low Battery" flashes in the display when the battery has several minutes of talk time left.

About the Lock Code

The lock code is a four-digit code used to set and confirm a function and delete a memory. The default lock code is **1234**. You can change the lock code to any number you like (see page 43).

Notes

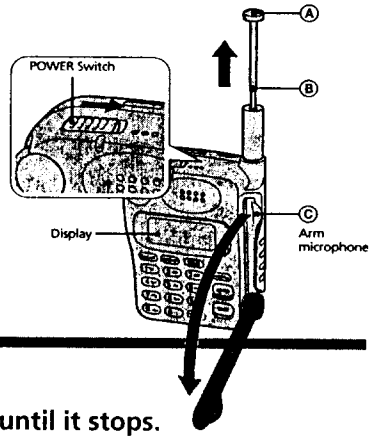
- When you change the lock code, keep a record of the new lock code. If you make a mistake in entering the lock code, "Lock Code Incorrect" appears and initial display returns. Try again from the first.
- Even when the phone is locked, you can dial the emergency number (911).

Functions which need the lock code

All Redial Memories Erase ..... page 24
Auto Lock ..... page 42
Changing Lock Code ..... page 43
Speed Dial Memory Restriction ..... page 54
User Set Up Clear ..... page 55
All Speed Dial Memories Erase ..... page 56

Setting Up Your Phone

Each time you use your phone, you have to complete the following steps:
- Extend the antenna.
- Turn the power on.
- Check the signal status.

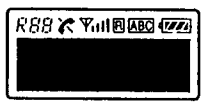


Turning the Power On

1 Hold Ⓐ and extend the antenna until it stops.
When replacing the antenna, hold Ⓑ and push it back until it clicks.

2 Slide the POWER switch to turn the power on.
The phone beeps (wake up tone) unless the silent alarm mode is selected, the display backlight and key light turn on, and the display shows:
(e.g. normal settings)

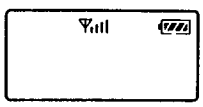
1) All the indicators light up.



2) The battery level is displayed.
Battery power

▪▪▪▪▪▪▪	The battery power is full
▪▪▪▪▪▪	The battery power is more than half
▪▪▪▪	The battery power is less than half
▪▪	The battery power is low and replacing or recharging will soon be necessary

3) The signal strength indicator appears and the phone enters standby mode.
(e.g. when the signal is strong)



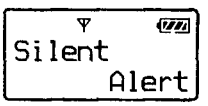
Signal strength

- Strong signal
- Good signal
- Fair signal
- Weak signal
- No service (out of service). You cannot use the phone.

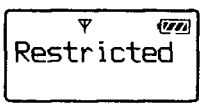
When a certain restriction or function is selected, the following display appears instead of the display in 3).

- When Auto Lock is set (see page 42), "Locked" remains until the lock mode is released.

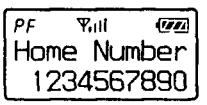
- When the ringer volume is set to "Ring Silent" (see page 27), the ringer does not sound when an incoming call arrives.



- When Restriction is set (see page 54), only the phone numbers stored in the memory locations 01-09 can be dialed.



- When Pref. Memo display is set, the preferred number remains on the display until any button is pressed (see page 57).



Note

When both Silent Alert and Restriction are set, Silent Alert appears first, then Restriction appears.

Turning the Power Off

Slide the POWER switch to turn the power off.
If the antenna is extended, hold Ⓑ and push it back, then press Ⓐ until it clicks. Do this to avoid bending the antenna.

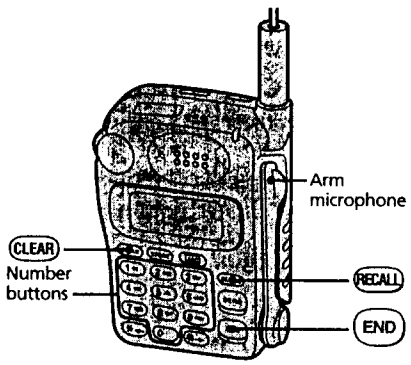
Using the Arm Microphone

Keep the arm microphone open during a call.
Hold Ⓒ and pull forward to open the arm microphone.
To replace the arm microphone, hold Ⓒ and push it back until it clicks.

Opening arm microphone	Makes a call. Answers an incoming call.
Closing arm microphone	Ends a call.

Making Calls

You can make a call (up to 32 digits) in two ways as described in **A** and **B**, when the icon does not light up indicating that your phone is in the service area.



A When the Arm Microphone is Closed

1 Dial the number (up to 32 digits).

If you have dialed a wrong number, press CLEAR to delete a digit or press END or press and hold CLEAR for 1 second to delete all digits.

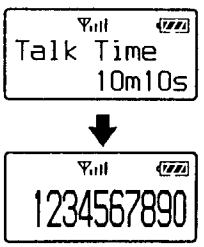
2 Open the arm microphone.

The phone automatically starts dialing.
The icon lights up.
If the talk timer function is set, the call time appears in the display during the call (see page 44).

If the minute alert function is set, a beep sounds when your call time reaches 50 seconds and every minute during the call to tell you the elapsed time (see page 47).

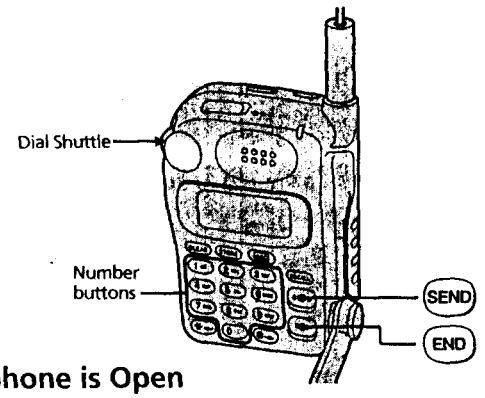
3 Press END or close the arm microphone to end the call.

icon disappears, the number dialed appears and the standby display returns.



Notes

If an incoming call arrives during the procedure, the phone will get ready to answer the call.



B When the Arm Microphone is Open

1 Dial the number (up to 32 digits).

If you have dialed a wrong number, press CLEAR to delete a digit, or press END or press and hold CLEAR for 1 second to delete all digits.

2 Press SEND or Dial Shuttle.

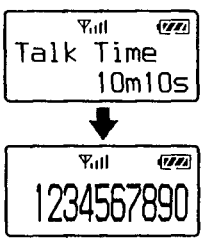
The icon lights up.

If the talk timer function is set, the call time appears in the display during the call (see page 44).

If the minute alert function is set, a beep sounds when your call time reaches 50 seconds and every minute during the call to tell you the elapsed time (see page 47).

3 Press END or close the arm microphone to end the call.

icon disappears, the number dialed appears and the standby display returns.



Unsuccessful calls

If one of the following conditions occurs, you have failed in making a call. When the Auto Redial (see below) is set, the phone number is automatically dialed except for busy tone.

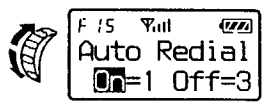
Problem	Cause	Auto Redialing
None or only one signal strength icon bar is displayed.	Area of poor reception. Press (END) and change to a location where the signal condition is better. In a building, move to closer to a window.	Does not work
Busy tone	The line is busy. Press (END) to disconnect the line, and redial later.	Does not work
Fast busy tone	The system did not process the call. Press (END) to disconnect the line, and redial later.	Works
Alerting high-low tone	Out of the service area. Press (END) and redial later.	Works

Auto Redial Function

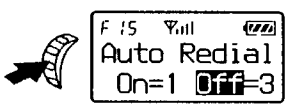
Except when the line is busy, the auto redial function tries to make the call again. You can set this function in the standby mode or when the arm microphone is open. The default setting is On.

1 Press Dial Shuttle to enter F mode.
The menu display appears.

2 Turn Dial Shuttle to select "F15 Auto Redial".
The current setting is highlighted.



3 Press Dial Shuttle repeatedly to select "On" or "Off".
The selected setting is highlighted.

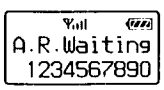


If using number buttons

step1 : press Dial Shuttle
step2 : press (1 QZ) (5 JKL)
step3 : press (1 QZ) (On) or (3 DEF) (Off)

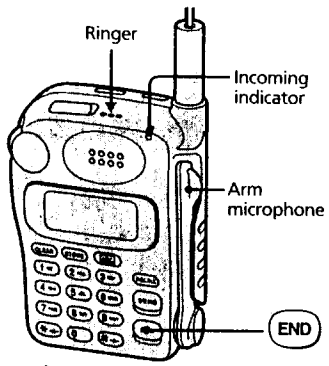
Auto Redial display

Redialing

Waiting to redial 

Receiving Calls

You can receive a call when the icon does not light up indicating that your phone is in the service area. There are two ways as described in **A** and **B** to receive a call.

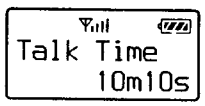


A When the Arm Microphone is Closed

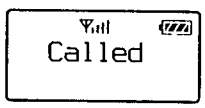
- **When the ringer sounds, the incoming indicator begins flashing. "Call" blinks in the display.**
  If the ringer volume is set to "Ring Silent" (see page 27), the ringer does not sound.

1 Open the arm microphone and answer the call.
The icon lights up and the talk time appears.

2 Press (END) or close the arm microphone to end the call.

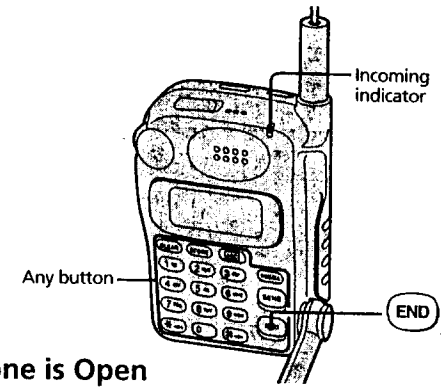


If you do not answer the call
"Called" remains until your next button operation to inform you that there was a call.



Note

The ringer is near the speaker. Therefore, when the ringer is set to the maximum level, put the speaker to your ear after you answer the call to prevent damage to your ear.

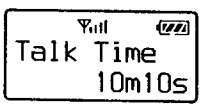


B When the Arm Microphone is Open

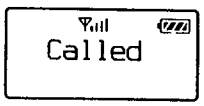
- **When the ringer sounds, the incoming indicator begins flashing.**
  If the ringer volume is set to "Ring Silent" (see page 27), the ringer does not sound.

1 **You can answer the call by pressing any button except POWER switch.**
The ✆ icon lights up.

2 **Press (END) or close the arm microphone to end the call.**

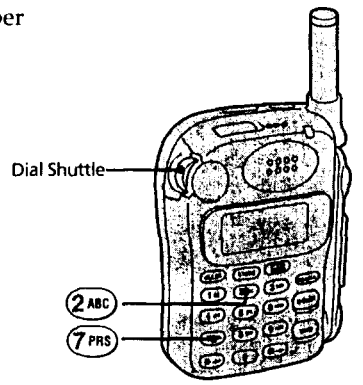


If you do not answer the call
"Called" remains until your next button operation to inform you that there was a call.

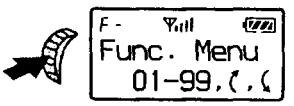


Displaying Your Own Phone Number

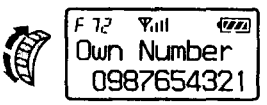
You can review your own phone number in the standby mode or during call.



1 Press Dial Shuttle to enter F(Function) mode.
The menu display appears.



2 Turn Dial Shuttle to select "F72 Own Number".
The display shows your phone number.



If using number buttons

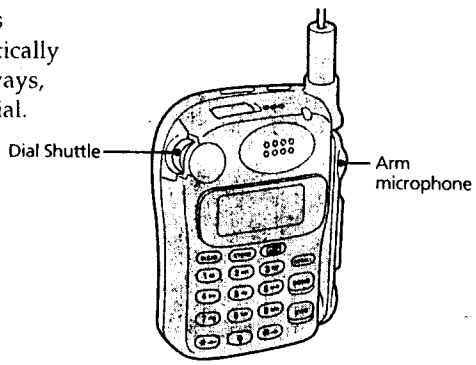
step1 : press Dial Shuttle
step2 : press 7 PRS 2 ABC

Note

You can also display your own phone number by pressing RECALL and #-.

Redialing the Last Five Numbers Dialed

You can recall the last 5 numbers dialed by your phone to automatically dial them again. There are two ways, as described in **A** and **B**, to redial.

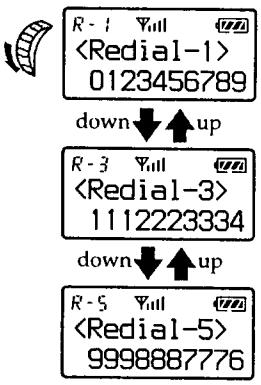


A When the Arm Microphone is Closed

1 Turn Dial Shuttle down to select a phone number.

The numbers dialed most recently appear as follows.

Turning Dial Shuttle down further shows the numbers (up to 5 numbers) dialed, in order from new to old.
Turn Dial Shuttle up when the last number is displayed.

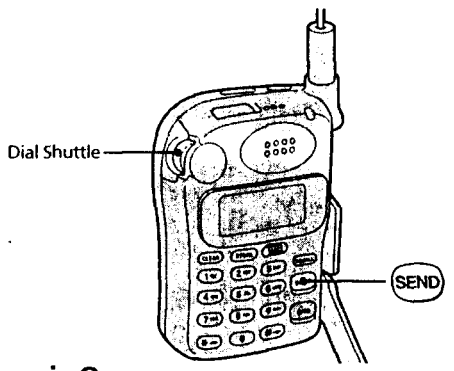


2 Open the arm microphone.

The ✆ icon lights up and the number displayed is automatically dialed again.

Notes

- When the sixth number is stored, the oldest number is deleted.
- When the number dialed has a name, the name appears instead of "<Redial-X>".



B When the Arm Microphone is Open

1 Turn Dial Shuttle down to select a phone number.

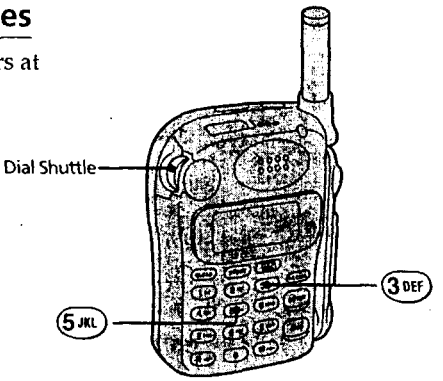
2 Press SEND or Dial Shuttle.
The icon lights up and the number displayed is dialed again.

Notes

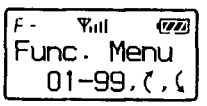
- When the sixth number is stored, the oldest number is deleted.
- When the number dialed has a name, the name appears instead of "<Redial-X>".

Erasing All Dialed Memories

You can erase the five dialed numbers at a time.



1 Press Dial Shuttle to enter F(Function) mode.
The menu display appears.



2 Turn Dial Shuttle to select "F53 Redial Mem. All Erase = →".

3 Press Dial Shuttle again.
The lock code entry display appears.

4 Enter the four-digit lock code.
"Redial Mem. All Erased" appears and all the dialed memories are erased.

If using number buttons

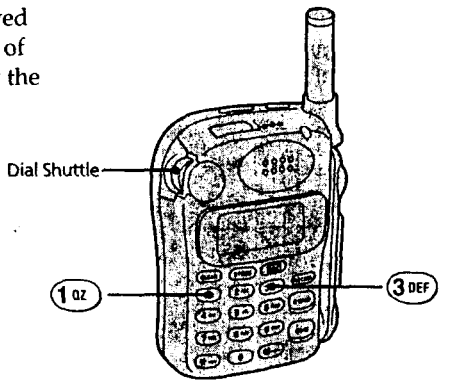
step1 : press Dial Shuttle
step2 : press (5 JKL) (3 DEF)

If you enter a wrong lock code

"Lock Code Incorrect" appears and the standby display returns. Try again from the first step.

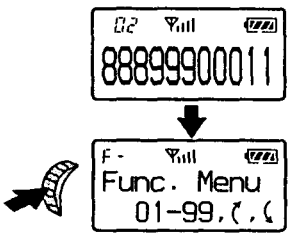
Displaying Upper Numbers

Only the last 11 digits can be displayed when the phone number is made up of more than 11 digits. You can display the upper hidden numbers.

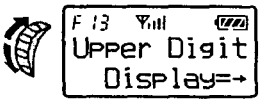


Example: Memory number: 02,
Phone number: 11122233344455566677788899900011

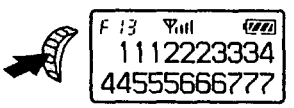
1 Press Dial Shuttle to enter F mode.
The menu display appears.



2 Turn Dial Shuttle to select "F13 Upper Digit Display = →".



3 Press Dial Shuttle again.
The upper numbers appear.
The previous display returns 5 seconds after you release Dial Shuttle.

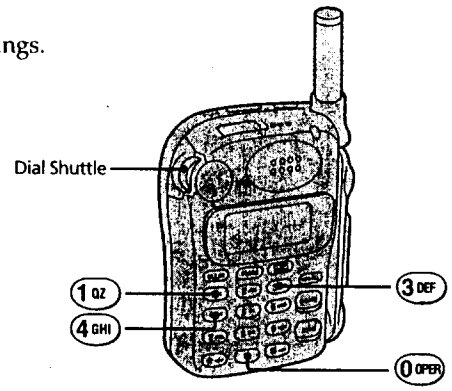


If using number buttons

step1 : press Dial Shuttle
step2 : press 1 QZ 3 DEF

Adjusting Volume

You can adjust volume to suit your situation, preference and surroundings.



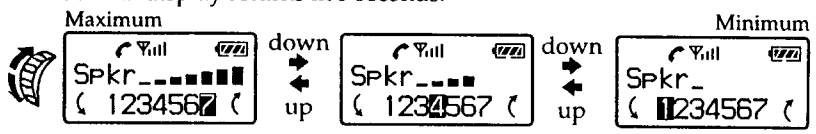
Adjusting the Speaker Volume

You can adjust the volume during a call and in standby mode.

During a call

1 Turn Dial up Shuttle to increase, and down to decrease, the volume.

The initial display returns in 5 seconds.



In standby mode

1 Press Dial Shuttle to enter F(Function) mode.

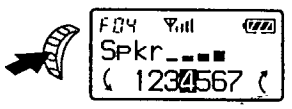
The menu display appears.

2 Turn Dial Shuttle to select "F04 Speaker Vol".

The volume level currently set appears.

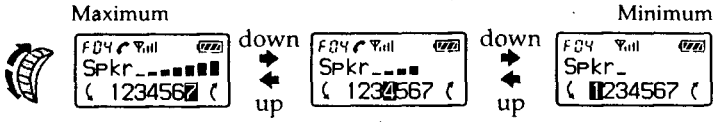
3 Press Dial Shuttle again.

You can change the volume level by turning Dial Shuttle.



4 Turn Dial Shuttle up to increase, and down to decrease, the volume.

The phone sounds at the set level and the initial display returns in 5 seconds.



If using number buttons

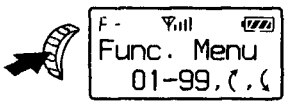
step1 : press dial Shuttle
step2 : press (0 OPER) (4 GHI)

Adjusting the Ringer Volume

You can set the ringer volume in the standby mode to four levels including off, or you can select "RingEscalat". If you select "Ring Escalat", the volume of the ringer increases gradually*. The ringer type can be selected from five types (see page 52).

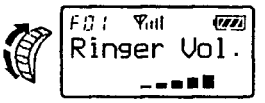
1 Press Dial Shuttle to enter F(Function) mode.

The menu display appears.



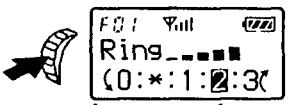
2 Turn Dial Shuttle to select "F01 Ringer Vol."

The volume level currently set appears.



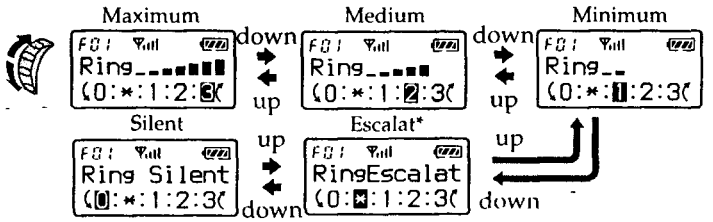
3 Press Dial Shuttle again.

You can set the ringer volume level.



4 Turn Dial Shuttle up to increase, and down to decrease, the volume.

The phone sounds at the set level and the initial display returns in 5 seconds.



(continued next page)

If using number buttons

step1 : press Dial Shuttle

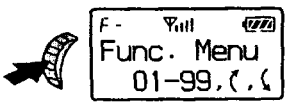
step2 : press (0 OPER) (1 oz)

Adjusting the Key Tone Volume

You can set the key tone volume in the standby mode to four levels including off.

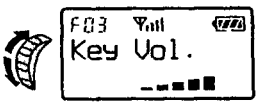
1 Press Dial Shuttle to enter F(Function) mode.

The menu display appears.

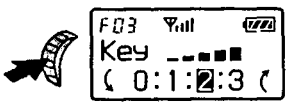


2 Turn Dial Shuttle to select "F03 Key Vol".

The volume level currently set appears.

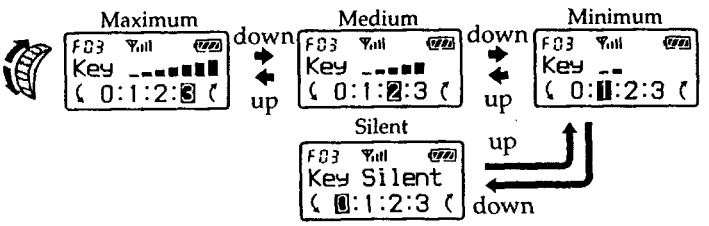


3 Press Dial Shuttle again.



4 Turn Dial Shuttle up to increase, and down to decrease, the volume.

The phone sounds at the set level and the initial display returns.



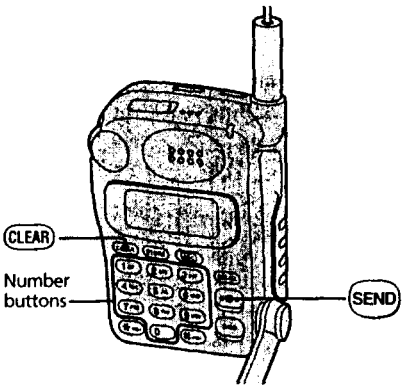
If using number buttons

step1 : press Dial Shuttle

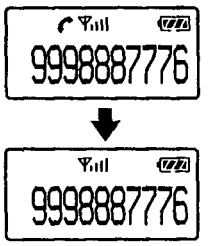
step2 : press (0 OPER) (3 DEF)

Using Scratchpad Memory

You can use the scratchpad memory to memorize a phone number during a call. You can also memorize alphabets. See page 33 for entering alphabets.



Enter the number you wish to remember during your call. After you hang up, the number you entered remains on the display.
(e.g. 9998887776)



To change the last digit (while entering)

- Press CLEAR then re-enter a new last digit.

Note

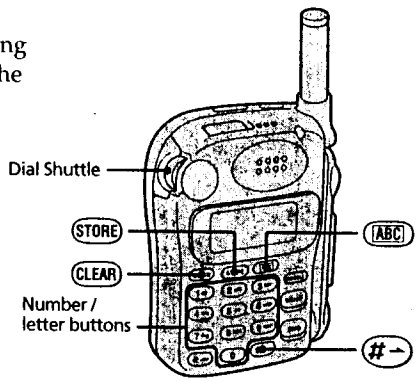
To dial the number in the scratchpad, press SEND.

To store a scratchpad number into a speed dialing memory

See "Storing a Number in Memory" in "Speed Dialing" (page 30) and follow the procedure from step 2.

Speed Dialing

You can dial frequently used phone numbers (up to 99 numbers: 01-99) using the speed dialing function by storing the numbers in memory locations.

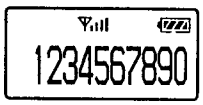


Storing a Number in Memory

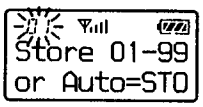
You can store a phone number (up to 32 digits and up to 11 characters) in one of the memory locations for speed dialing.
You can also store an access number such as your access ID code or account number used in on-line telephone services.

Example: Phone number: 1234567890, Memory location: 01

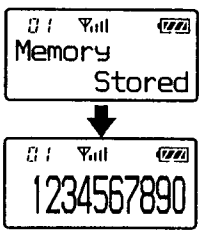
1 Enter the phone number you wish to store.
If you make an error entering the phone number, press CLEAR and re-enter a new digit.



2 Press STORE.
"Store 01-99 or Auto=STO" appears.



3 Enter a memory location number (01-99).
The number is stored in memory.

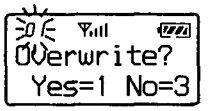


To store a phone number in an empty location automatically

Press STORE again after step 2.

Note

If the memory you specified is occupied by another phone number, "Overwrite?" appears when you press STORE. Press 1 to replace the old one with a new one or press 3 to change the memory number.



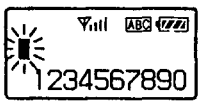
Storing a Number with Name in Memory

You can store a name made up of up to 11 characters.

Example: Phone number : 1234567890,
Name : SONY
Memory location : 01

1 Enter the phone number.

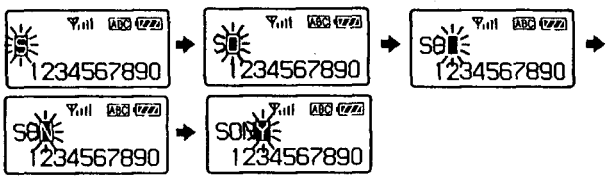
2 Press (ABC).
The cursor appears, blinking.



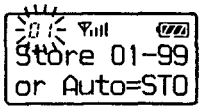
3 Enter a name using number buttons.
See the letter table for entering alphabetical letters.

Press a number button until the desired letter appears.
The cursor and the letter at its position alternate, blinking.
Enter successive letters in the same way.
When entering two letters which are assigned to the same button, press Dial Shuttle or (#–) after you enter the first letter.

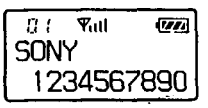
P R S M N O M N W X Y
Press (7 PRS) (7 PRS) (7 PRS) (6 MNO) (6 MNO) (6 MNO) (#–) (6 MNO) (6 MNO) (9 WXY) (9 WXY) (9 WXY).



4 Press (STORE).
"Store 01-99 or Auto=STO" appears.



5 Enter the memory number (01-99).



Note

To enter a name first, press (ABC) and then enter the name. Press (ABC) again and then enter the number.

To enter letters using the number buttons

Press a number button several times until the desired letter appears. Letters scroll in the following order. (*) moves the cursor one digit to the left and (#) fixes the highlighted character and moves the cursor one digit to the right.

Letter Table

BUTTON	DISPLAY
(1 QZ)	QZqz-.,'"1
(2 ABC)	ABCabc2
(3 DEF)	DEFdef3
(4 GHI)	GHIghi4
(5 JKL)	JKLjkl5
(6 MNO)	MNOmno6
(7 PRS)	PRSprs7
(8 TUV)	TUVtuv8
(9 WXY)	WXYwxy9
(0 OPER)	0

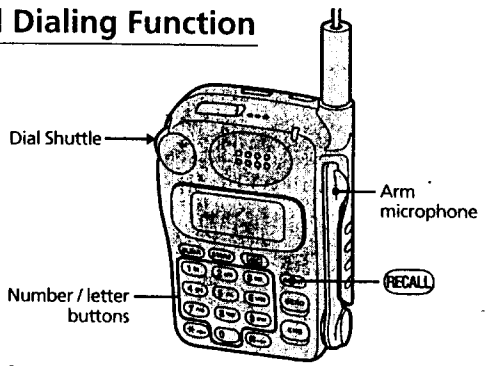
To enter letters using Dial Shuttle

You can select a character by turning Dial Shuttle up or down. Characters appear as follows.

Turn up Dial Shuttle
ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmno pqrstuvwxyz1234567890-.,'"
Turn down Dial Shuttle
Opposite of the above.

Dialing with the Speed Dialing Function

You can dial the prestored number or an access number with a simple procedure. There are two ways as described in **A** and **B** to use speed dialing.

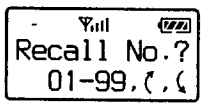


A When the Arm Microphone is Closed

Example: Memory number: 25

1 Press RECALL.

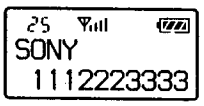
"Recall No.?" appears.



If "F43 Restriction" is "On", "01-09, (, (" appears and you can dial only memory locations 01-09.

2 Press 2 ABC and 5 JKL.

The phone number stored in memory location 25 appears.



If you entered the wrong number, you can scroll through memory locations by turning Dial Shuttle up or down.

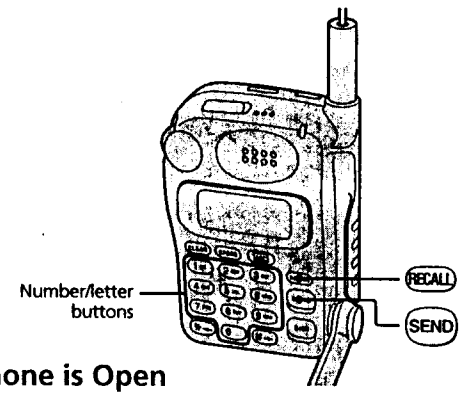
You need to press 0 OPER before a one-digit memory location.

3 Open the arm microphone.

appears and the number is dialed.

Note

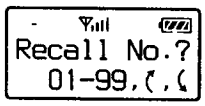
If an incoming call arrives during the procedure, the phone will exit the mode to get ready to answer the call.



B When the Arm Microphone is Open

1 Press RECALL.

"Recall No.?" appears.



If "F43 Restriction" is "On", "01-09, (, (" appears and you can dial memory locations 01-09.

2 Press 2ABC and 5JKL.

The phone number stored in memory location 25 appears.

If you entered the wrong number, you can scroll through memory locations by turning Dial Shuttle up or down.

3 Press SEND or Dial Shuttle.

✆ appears and the number is dialed.

Scrolling Through Speed Dial Memory with Dial Shuttle

To scroll from standby mode

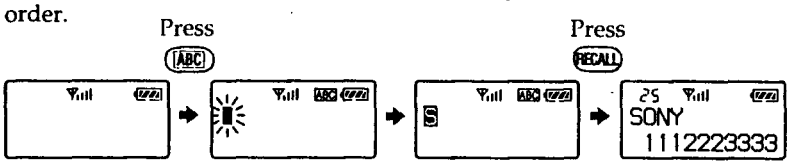
Turn Dial Shuttle up. The first memory location appears. Memory locations appear in the order you selected using "F12 Search Mode 123/ABC" (see page 53). Turn Dial Shuttle to scroll through memory locations.

To scroll after recalling a number

Turn Dial Shuttle. Memory locations appear in location number order.

To scroll after entering the initial letter

Press (ABC). Enter the initial letter using the number buttons. Press (RECALL). The first memory location whose name begins with the letter you entered appears. Turn Dial Shuttle. Memory locations appear in alphabetical order.



Note

Memory Search Order

Dial Shuttle up

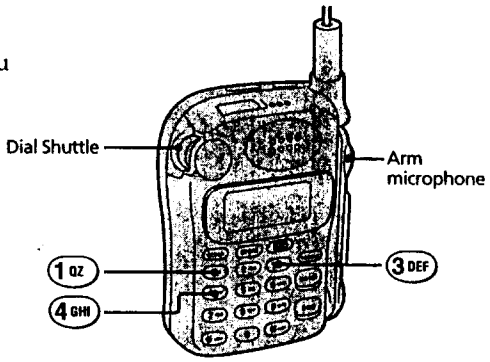
Preferred Memory → Speed Dialing Memory → Redialing Memory

Dial Shuttle Down

Redialing Memory → Speed Dialing Memory → Preferred Memory

Quick Dialing

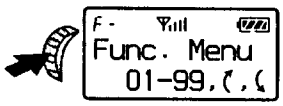
You can set the phone so that you do not need to press (RECALL) when you recall a stored number. Set this function to On to use it. The default setting is On.



To set the quick dialing function

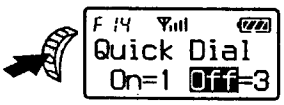
You can set this function only in the standby mode.

1 Press Dial Shuttle to enter F mode.
The menu display appears.



2 Turn Dial Shuttle to select "F14 Quick Dial".
The currently selected setting is highlighted.

3 Press Dial Shuttle repeatedly to select "On" (set) or "Off" (release).
The selected setting is highlighted.

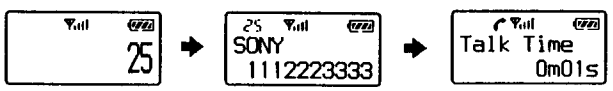


If using number buttons

step1 : press Dial Shuttle
step2 : press (1 oz) (4 GHI)
step3 : press (1 oz) (On) or (3 DEF) (Off)

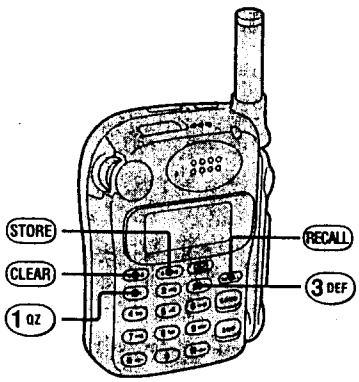
To dial with the quick dialing function

Enter the memory location number (1 or 2 digits), then open the arm microphone. If the arm microphone is already open, enter the memory location number, then press (SEND).
Example: Memory location: 25.

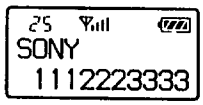


Changing the Stored Number

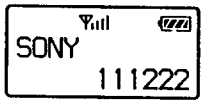
You can change a stored phone number.



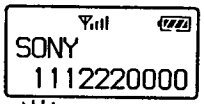
1 **Press RECALL and enter the stored number you wish to change.**



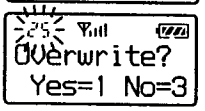
2 **Press CLEAR several times as needed.**
Each time you press CLEAR, the last digit is deleted.



3 **Enter a new phone number.**

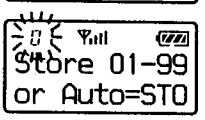


4 **Press STORE.**
"Overwrite?" appears.



5 **Press 1 QZ (Yes) or 3 DEF (No).**
Press 1 QZ to overwrite.

If you press 3 DEF, "Store 01-99 or AUTO = STO?" appears.
Enter a new memory location or press STORE to automatically select a new memory location.

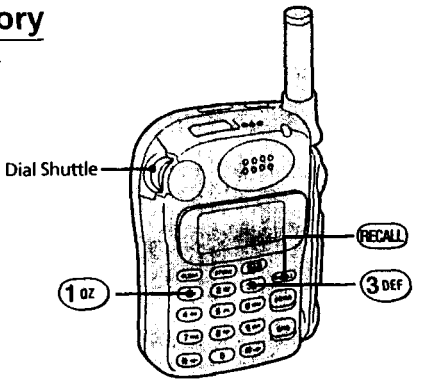


Note

If an incoming call arrives during the procedure, the phone will exit memory mode to get ready to answer the call.

Erasing Speed Dialing Memory

You can delete a speed dialing memory which you do not need any more.



1 Press RECALL and enter the stored number you wish to delete.

You can also recall the number by turning Dial Shuttle up or down.

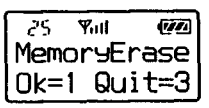
2 Press Dial Shutle to enter F mode.

The menu display appears.

3 Turn Dial Shuttle to select "F11 Memory Erase = →".

4 Press Dial Shuttle again.

The number appears for a while and the selection display appears.



5 Press 1 oz (Ok).

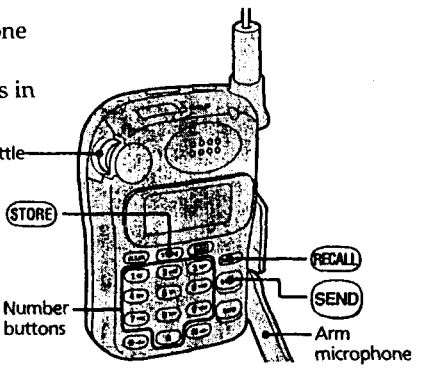
The speed dialing memory is deleted.
Press 3 DEF (Quit) to abort the procedure and return to the initial display.

If using number buttons

step1 : press Dial Shuttle
step2 : press 1 oz 1 oz

Sending DTMF

You can access various on-line telephone services by sending tone signals from your phone. By storing access numbers in memory, you can easily access these services.



Sending a DTMF number during a call

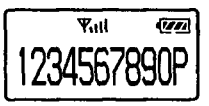
Press number buttons.

Storing a phone number followed by a DTMF number in memory

Example: Phone number: 1234567890, DTMF number: 6789, Memory location: 26

1 **Press** (1 QZ) (2 ABC) (3 DEF) (4 GHI) (5 JKL) (6 MNO) (7 PRS) (8 TUV) (9 WXY) (0 OPER) **and** (RECALL).

When you press (RECALL), "P" which indicates pause appears.

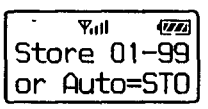


2 **Press** (6 MNO) (7 PRS) (8 TUV) **and** (9 WXY).

3 **Press** (STORE).

"Store 01-99 or Auto=STO" appears.

If "F43" Restriction" is "On", you can access only memory locations 01-09.



4 **Enter a memory location number.**

You can also press (STORE) to select an empty location automatically.

Note

If you store only a DTMF number in memory, you need not enter "P" (pause). When you press (RECALL), "P"(pause) automatically appears.

Sending a DTMF Number Stored in Memory

You can send a stored DTMF number during a call.

To send a phone number followed by a DTMF number in memory

Example: Memory location: 26

1 **Press RECALL 2 ABC and 6 MNO.**

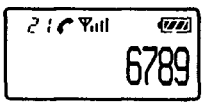
2 **·When the arm microphone is closed**
Open the arm microphone
·When the arm microphone is open
Press SEND.

3 **Press SEND again during a call when you are prompted to send the DTMF number.**
The DTMF number is sent out.

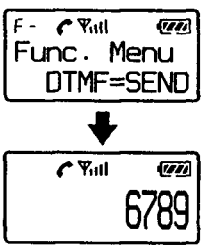
To send a DTMF number stored in the memory

Example: Memory location: 21

1 **Press RECALL 2 ABC and 1 QZ during the call.**

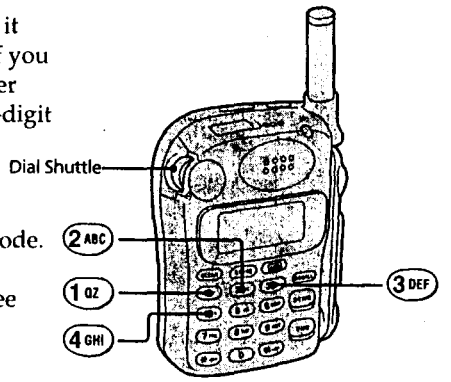


2 **Press Dial Shuttle, then SEND when you are prompted to send the DTMF number.**
The stored DTMF number is sent out.



Locking Your Phone Automatically

You can lock your phone to prevent it from being used by other persons. If you set the auto lock, each time the power turns on, you need to enter the four-digit lock code.

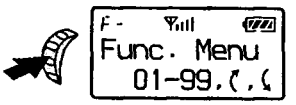


Caution

Keep a written record of your lock code. If you forget your lock code, please contact the Sony Cellular Hotline (see page 68).

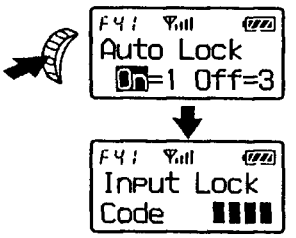
Setting the Auto Lock

1 Press Dial Shuttle to enter F mode.
The menu display appears.

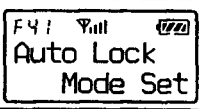


2 Turn Dial Shuttle to select "F41 Auto Lock".
The currently selected mode is highlighted.

3 Press Dial Shuttle repeatedly to select "On".
The lock code entry display appears.



4 Enter the four-digit lock code.
The message appears and the lock is set.



If using number buttons

step1 : press Dial Shuttle
step2 : press 4 GHI 1 QZ
step3 : press 1 QZ (On) or 3 DEF (Off)

Notes

- The phone is locked after the power is turned off then on again.
- If you enter a wrong lock code, "Lock Code Incorrect" appears and the standby display returns. Try again from the beginning.

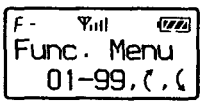
Releasing the Auto Lock

Press Dial Shuttle or 3 DEF (Off) to select Off in step 3 on the previous page.

Changing the Lock Code

You can change the lock code to any number you like.

1 Press Dial Shuttle to enter F mode.
The menu display appears.



2 Turn Dial Shuttle to select "F42 Lock Code".

3 Press Dial Shuttle again.
The lock code entry display appears.

4 Enter the current lock code.
If you enter a wrong lock code, "Lock Code Incorrect" appears and the initial display returns. Try again from the beginning.

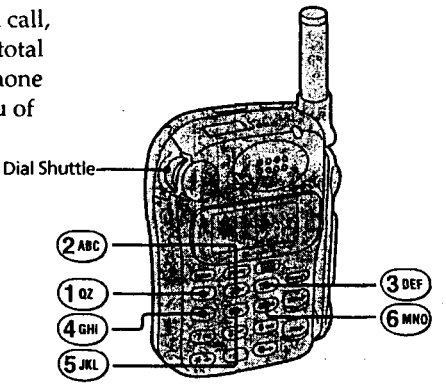
5 Enter a new lock code.
"Lock Code Changed" appears and the initial display returns.

If using number buttons

step1 : press Dial Shuttle
step2 : press 4 GHI 2 ABC

Checking the Length of a Call

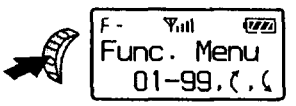
You can check the talk time during a call, the talk time of the last call, and the total call time. You can also set the the phone to sound every minute to inform you of the elapsed time.



Setting the Talk Time Display On/Off

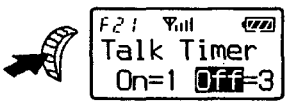
You can set the phone to display the talk time during a call.

1 Press Dial Shuttle to enter F mode.
The menu display appears.



2 Turn Dial Shuttle to select "F21 Talk Timer".
The currently selected mode is highlighted.

3 Press Dial Shuttle repeatedly to select "On" or "Off".



If using number buttons

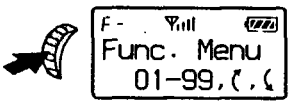
step1 : press Dial Shuttle
step2 : press 2 ABC 1 QZ
step3 : press 1 QZ (On) or 3 DEF (Off)

Note

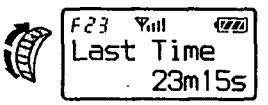
To not change the selection, wait until the display time-outs.

Checking the Talk Time of the Last Call

1 Press Dial Shuttle to enter F mode.
The menu display appears.



2 Turn Dial Shuttle to select "F23 Last Time".
The talk time of the last call appears.



If using number buttons

step1 : press Dial Shuttle
step2 : press (2 ABC) (3 DEF)

Checking the Total Time of All Calls

You can check the total call time of both NAMs.
You cannot reset the Total Time of All Calls.

1 Press Dial Shuttle to enter F mode.
The menu display appears.

2 Turn Dial Shuttle to select "F24 All Calls".
The total time of both NAMs appears.

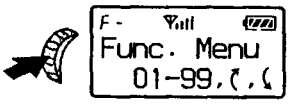
If using number buttons

step1 : press Dial Shuttle
step2 : press (2 ABC) (4 GHI)

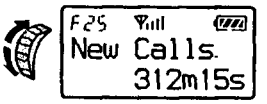
Checking the Total Time of New Calls

You can check the total call time of the currently selected NAM.
You can reset the Total Time of New Calls.

1 Press Dial Shuttle to enter F mode.
The menu display appears.



2 Turn Dial Shuttle to select "F25 New Calls".
The total time of the currently selected NAM appears.

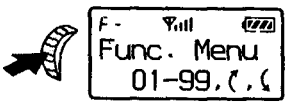


If using number buttons

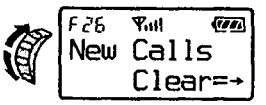
step1 : press Dial Shuttle
step2 : press (2ABC) (5JKL)

To reset the Total Time of New Calls

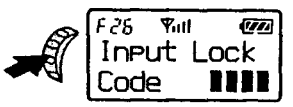
1 Press Dial Shuttle to enter F mode.
The menu display appears.



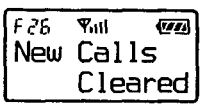
2 Turn Dial Shuttle to select "F26 New Calls Clear= →".



3 Press Dial Shuttle again
The lock code entry display appears.



4 Enter the four-digit lock code.
The New Calls is reset.



If using number buttons

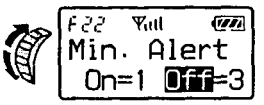
step1 : press Dial Shuttle
step2 : press (2ABC) (6MNO)

Setting the Minute Alert On/Off

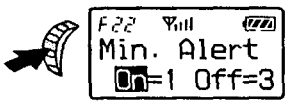
When this function is activated, the phone beeps after the first 50 seconds of a conversation and then beeps every minute.

1 Press Dial Shuttle to enter F mode.
The menu display appears.

2 Turn Dial Shuttle to select "F22 Min. Alert".



3 Press Dial Shuttle repeatedly to select "On" or "Off".

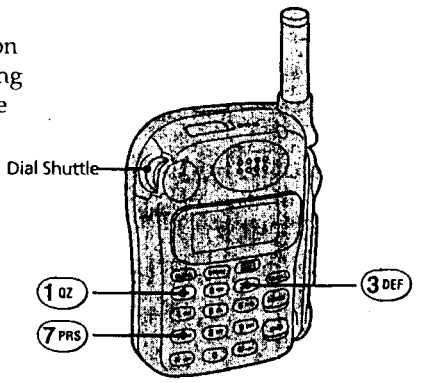


If using number buttons

step1 : press Dial Shuttle
step2 : press 2ABC 2ABC
step3 : press 1QZ (On) or 3DEF (Off)

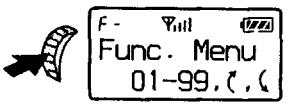
Saving Battery Power (VOX)

Your phone is equipped with a VOX (Voice Operated Transmission) function which prolongs battery life by activating transmission power only when you are speaking.
This function is only available when operating your phone using a carrier that provides the VOX service.

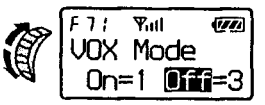


Turning VOX On/Off

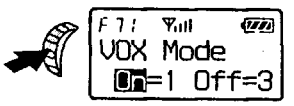
1 Press Dial Shuttle to enter F mode.
The menu display appears.



2 Turn Dial Shuttle to select "F71 VOX Mode".



3 Press Dial Shuttle repeatedly to select "On" or "Off".

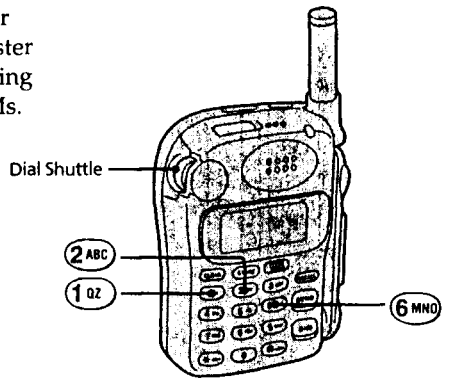


If using number buttons

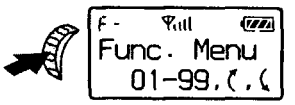
step1 : press Dial Shuttle
step2 : press 7 PRS 1 oz
step3 : press 1 oz (On) or 3 DEF (Off)

Selecting the DUAL NAM

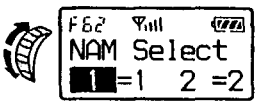
Your phone has two NAMs (Number Assignment Modules). You can register two different cellular systems, allowing you to switch between the two NAMs.



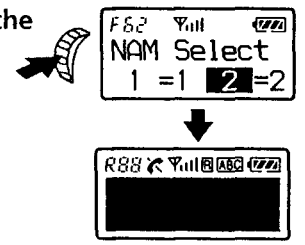
1 Press Dial Shuttle to enter F mode.
The menu display appears.



2 Turn Dial Shuttle up or down to select "F62 NAM Select".
The currently selected NAM is highlighted.



3 Press Dial Shuttle repeatedly to select the NAM 1 or NAM 2.
If you change NAM, the phone is re-started and the displays appear as when powered on.

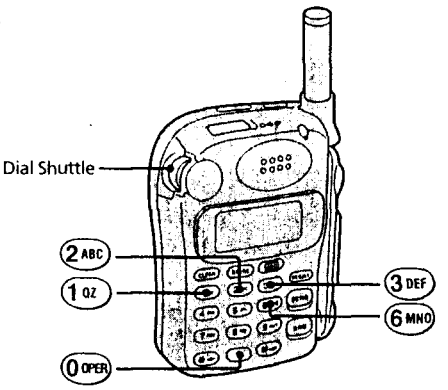


If using number buttons

step1 : press Dial Shuttle
step2 : press (6 MNO) (2 ABC)
step3 : press (1 QZ) (NAM1) or (2 ABC) (NAM2)

Selecting an A/B System Mode

You can select an A/B system mode.



About A/B System

Each cellular service area has two service providers (carriers). One is the A carrier and the other is the B carrier. When your subscribed carrier does not provide coverage in the area which you are in, your phone will search for another cellular service carrier. You can control the order in which your phone searches for a system by using the A/B system selection feature. When you are in your "home" service area, the [A] remains off. When you have gone out of your "home" service area, the [A] appears. If [A] is steady, you are operating the phone outside of your home area, but you are in the same type of system as your home system (A or B). If [A] is blinking, you are operating the phone in the opposite system as your system. Airtime charges are normally higher when roaming. (Placing a local call while roaming usually requires dialing the area code as well as the 7-digit number.) You can select one of 4 modes.

Std. (standard)
When the A system is the service you subscribe to, your phone will first seek service in the A system (when either in your home area or roaming), then search service in the B system. When the B system is the service you subscribe to, your phone will first seek service in the B system (when either in your area or roaming), then search service in the A system.

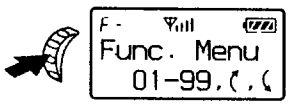
A (A-only)
Only searches the A system for service.

B (B-only)
Only searches the B system for service.

Home (Home-only)
Only searches your home system for service. This mode does not allow roaming.

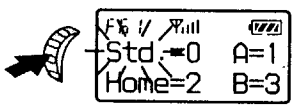
Selecting an A/B System Mode

1 Press Dial Shuttle to enter F mode.
The menu display appears.

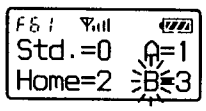


2 Turn Dial Shuttle to select "F61 System Select = →".

3 Press Dial Shuttle again.
The currently selected system blinks.



4 Press Dial Shuttle repeatedly to select a preferable mode.



0 = Standard
1 = A system only
2 = Home only
3 = B system only

If using number buttons

step1 : press Dial Shuttle
step2 : press (6 MNO) (1 QZ)
step3 : press (0 OPER), (1 QZ), (2 ABC) or (3 DEF)

Other Functions

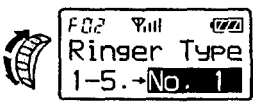
You can use your phone more conveniently with these functions. This section describes functions except those described in Basic and Advanced Operations.
Press Dial Shuttle to enter F mode. If you press and hold Dial Shuttle for 1 second, the function menu automatically scrolls. Press any button except POWER switch to stop scrolling.

Setting Ringer Type [F02]

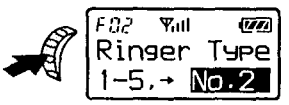
You can select a ringer type from five types.

1 Press Dial Shuttle to enter F mode.

2 Turn Dial Shuttle to select "F02 Ringer Type".
The current setting is highlighted.



3 Press Dial Shuttle repeatedly to select a number (1-5).



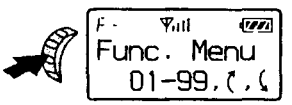
If using number buttons

step1 : press Dial Shuttle
step2 : press (0 OPER) (2 ABC)
step3 : press (1 QZ), (2 ABC), (3 DEF), (4 GHI), or (5 JKL)

Selecting Search Order [F12]

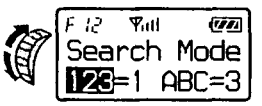
You can search for a stored number in the alphabetical or numerical order.

1 Press Dial Shuttle to enter F mode.



2 Turn Dial Shuttle to select "F12 Search Mode".

The current setting is highlighted.



3 Press Dial Shuttle repeatedly to select "123" (numerical) or "ABC" (alphabetical) .

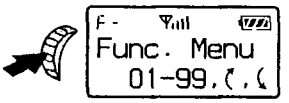
If using number buttons

step1 : press Dial Shuttle
step2 : press (1 oz) (2 ABC)
step3 : press (1 oz) (123: numerical order) or (3 DEF) (ABC: alphabetical order)

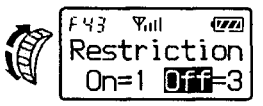
Restricting Speed Dial Memory [F43]

Set "Restriction" to "On" to make only nine speed memories (01-09) available.

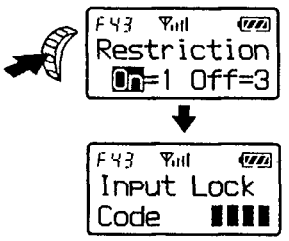
1 Press Dial Shuttle to enter F mode.



2 Turn Dial Shuttle to select "F43 Restriction".
The current setting is highlighted.

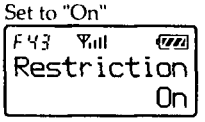


3 Press Dial Shuttle repeatedly to select "On" or "Off".
The lock code entry display appears.

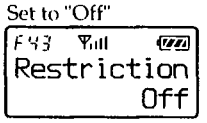


4 Enter the four-digit lock code.

Set to "On"



Set to "Off"



If using number buttons

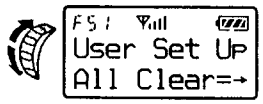
step1 : press Dial Shuttle
step2 : press (4 GHI) (3 DEF)
step3 : press (1 oz) (On) or (3 DEF) (Off)

Clearing User Set Up [F51]

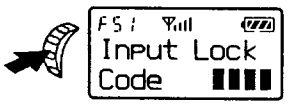
You can reset all settings you made to the default settings order.

1 Press Dial Shuttle to enter F mode.

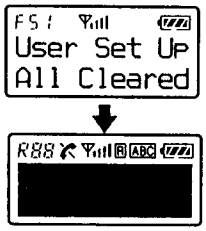
2 Turn Dial Shuttle to select "F51 User Set Up All Clear = →".



3 Press Dial Shuttle.
The lock code entry display appears.



4 Enter the four-digit lock code.
"User Set Up All Cleared" appears and the phone is re-started.



If using number buttons

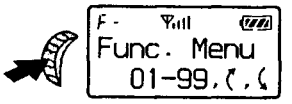
step1 : press Dial Shuttle
step2 : press 5 JKL 1 oz

Code	Function Name	Default	Code	Function Name	Default
F01	Ringer Volume	Maximum	F41	Auto Lock	Off
F02	Ringer Type	1	F43	Restriction	Off
F03	Keypad Volume	Maximum	F61	System Select	Standard
F04	Speaker Volume	Maximum	F62	NAM Select	1
F12	Search Mode	Numerical	F71	VOX	Off
F14	Quick Dialing	On	F73	Preferred Memory	Off
F15	Auto Redial	On	F74	Back Light	Off
F21	Talk Timer	On	F75	Auto Answer	Off
F22	Minute Alert	Off			

Erasing All Speed Dial Memories [F52]

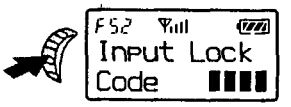
You can erase all speed dial memories at a time.

1 Press Dial Shuttle to enter F mode.



2 Turn Dial Shuttle to select "F52 All Memory Erase = →".

3 Press Dial Shuttle again.
The lock code entry display appears.



4 Enter the four-digit lock code.
"All Memory Erased" appears.

If using number buttons

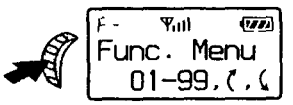
step1 : press Dial Shuttle
step2 : press 5JKL 2ABC

Please note that dialed memories are not erased. To erase dialed memories, see "Erasing All Dialed Memories" (page 24)

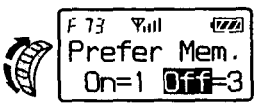
Turning Preferred Memory On/Off [F73]

You can set the phone so that the preferred memory appears each time the power is turned on.

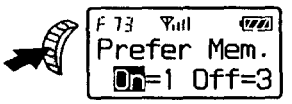
1 Press Dial Shuttle to enter F mode.



2 Turn Dial Shuttle to select "F73 Prefer Mem.".
The current setting is highlighted.



3 Press Dial Shuttle repeatedly to select "On" or "Off".



If using number buttons

step1 : press Dial Shuttle
step2 : press 7 PRS 3 DEF
step3 : press 1 QZ (On) or 3 DEF (Off)

To store a phone number in the preferred memory

Enter a phone number (and name) and press STORE, *~, *~.

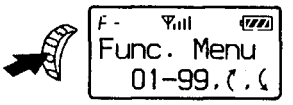
To recall a phone number in the preferred memory

Press RECALL, *~, *~.

Turning Backlight On/Off [F74]

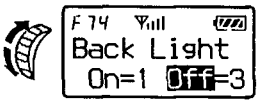
You can set the phone so that the backlight remains on. This function is available only when the phone is connected to the QN-023DC Car Battery Cord (not supplied) or QN-023HFK Handsfree Kit (not supplied). Normally, even when you turn the backlight on, it lights up only for 5 seconds after any button is pressed.

1 Press Dial Shuttle to enter F mode.

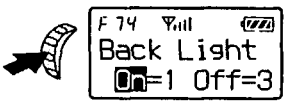


2 Turn Dial Shuttle to select "F74 Back Light".

This display appears only when the phone is connected to the Car Battery Cord or Handsfree Kit.



3 Press Dial Shuttle repeatedly to select "On" or "Off".



If using number buttons

step1 : press Dial Shuttle
step2 : press 7 PRS 4 GHI
step3 : press 1 QZ (On) or 3 DEF (Off)

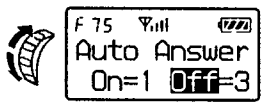
Turning Auto Answer On/Off [F75]

You can set the phone to automatically answer an incoming call during handsfree operation. This function is available only when the phone is connected to the QN-023HFK Handsfree Kit (not supplied).

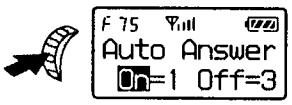
1 Press Dial Shuttle to enter F mode.

2 Turn Dial Shuttle to select "F75 Auto Answer".

This display appears only when the phone is connected to the Handsfree Kit.



3 Press Dial Shuttle repeatedly to select "On" or "Off".



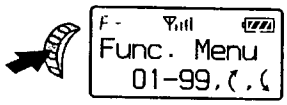
If using number buttons

step1 : press Dial Shuttle
step2 : press (7 PRS) (5 JKL)
step3 : press (1 QZ) (On) or (3 DEF) (Off)

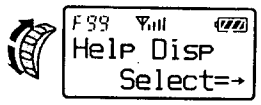
Using the Help Display [F99]

You can list the functions other than the function facility.

1 Press Dial Shuttle to enter F mode.



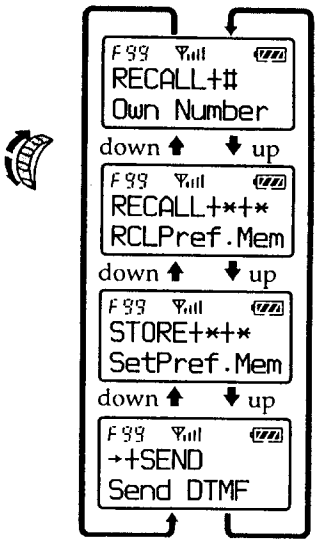
2 Turn Dial Shuttle to select "F99 Help Disp Select = →".



3 Press Dial Shuttle again.

4 Turn Dial Shuttle up or down.

The displays appear as follows.



If using number buttons

step1 : press Dial Shuttle
step2 : press (9WXY) (9WXY)

Rules and Regulations

The U.S. Federal Communications Commission and the Industry Canada regulate cellular radiotelephone service in their respective countries. It is important for you, the cellular radiotelephone user, to observe the applicable regulations when operating your cellular phone in either country. In addition to these U.S. and Canadian federal regulations, you may also be bound by certain state, provincial, territorial, and local rules and regulations, as well as by your cellular carrier's tariff (the rates terms, and conditions of its service). If you wish to use your cellular radiotelephone in both the U.S. and Canada, please consult with your system operator.

Furthermore, you should remember that your cellular phone is a radiotelephone, – i.e., it combines both wireline technology, as used in your home or office telephone system, and radio technology – and that the scope of regulations and precautions is therefore broader than the scope of regulations and precautions relating to wireline-only telephone usage.

Some of the major points of consideration are set out below. Please note, however, that this "Rules, Regulations, and Precautions" section does not constitute legal advice; and is intended merely for general information purposes. If you have any specific questions, please contact your Cellular Carrier (System Operator).

License

If your home system is in the U.S., you do not require a separate license to operate your cellular radiotelephone; obtaining a cellular telephone access number is sufficient to register you as a user. If your home system is in Canada, a separate license is required; your carrier will assist you in the licensing process. (If you wish to use your cellular phone on both sides of the border, please contact your Cellular Carrier (System Operator)).

Denial of Service

A cellular carrier may deny service temporarily or terminate service for violation of any government regulations or of its tariff.

Privacy

As a telephone user, you have come to assume a certain standard of privacy when you place or receive a telephone call via the traditional wireline systems. However, because cellular radiotelephones utilize radio transmissions to effect calls, the same standard cannot always be assured. While it is unlawful for any unauthorized person to divulge or use any information obtained from intercepting or "listening in on" conversations intended for others, you should not assume that your conversation is completely secure. Commercially available scanning equipment can permit a third party to monitor the radio channels used for cellular telephone calls.

Interference

No person shall interfere with or cause interference to any radio communication or signal.

Equipment Modifications

The U.S. Federal Communications Commision has type-approved the model of cellular radiotelephone which you have purchased, and has allocated a specific frequency range for cellular service.
No changes or adjustments are to be made to your cellular phone.

The radio equipment shall be made available for inspection upon request by representatives of the FCC or licenses.

Safety Precautions

IMPORTANT
READ THIS INFORMATION BEFORE USING
YOUR HAND-HELD PORTABLE CELLULAR TELEPHONE

First introduced in 1984, the hand-held portable cellular telephone is one of the most exciting and innovative electronic products ever developed. With it you can stay in contact with your office, your home, emergency services, and others.

For the safe and efficient operation of your phone, observe these guidelines.

Your cellular telephone is a radio transmitter and receiver. When it is ON, it receives and also sends out radio frequency (RF) energy. The phone operates in the frequency range of 824 MHz to 894 MHz and employs commonly used frequency modulation (FM) techniques. When you use your phone, the cellular system handling your call controls the power level at which your phone transmits. The power level can range from 0.006 of a watt to 0.6 of a watt.

Exposure to Radio Frequency Energy

In 1991 the Institute of Electrical and Electronics Engineers (IEEE), and in 1992 the American National Standards Insitute (ANSI) updated the 1982 ANSI Standard for safety levels with respect to human exposure to RF energy. Over 120 scientists, engineers, and physicians from universities, government health agencies, and industry, after reviewing the available body of research, developed this updated Standard. In March, 1993, the U.S. Eederal Communications Commission (FCC) proposed the adoption of this updated Standard.

The design of your phone complies with this updated Standard.

Of course, if you want to limit RF exposure even further than the updated ANSI Standard, you may choose to control the duration of your calls and operate your phone in the most power efficient manner.

Efficient Phone Operation

For your phone to operate at the lowest power level, consistent with satisfactory call quality, please observe the following guidelines:

Your phone has an extendible antenna. Extend it fully whenever possible. Your phone operates more efficiently with the antenna fully extended.

Hold the phone as you would any other telephone. While speaking directly into the mouthpiece, position the antenna up and over your shoulder.

Do not hold the antenna when the phone is "IN USE". Holding the antenna affects call quality and may cause the phone to operate at a higher power level than needed.

Antenna Care and Replacement

Do not use the phone with a damaged antenna. If a damaged antenna comes into contact with the skin, a minor burn may result. Replace a damaged antenna immediately. Take your phone to a qualified service center for repair.

Use only the supplied or approved antenna. Unauthorized antennas, modifications, or attachments could impair call quality, damage the phone and violate FCC regulations.

Driving

Check the laws and regulations on the use of cellular telephones in the areas where you drive. Always obey them. Also, when using your phone while driving, please:

- give full attention to driving,
- use hands-free operation, if available, and
- pull off the road and park before making or answering a call if driving conditions so require.

Electronic Devices

Most modern electronic equipment is shielded from RF energy. However, RF energy from cellular telephones may affect inadequately shielded electronic equipment.

RF energy may affect improperly installed or inadequately shielded electronic operating and entertainment systems in motor vehicles. Check with the manufacturer or its representative to determine if these systems are adequately shielded from external RF energy. You should also check with the manufacturer of any equipment that has been added to your vehicle.

Consult the manufacturer of any personal medical devices (such as pacemakers, hearing aids, etc.) to determine if they are adequately shielded from external RF energy.

Turn your phone OFF in health care facilities when any regulations posted in the areas instruct you to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

Aircraft

Turn your phone OFF before boarding any aircraft.

- Use it on the ground only with crew permission.
- Do not use in the air.

To prevent interference with aircraft systems, U.S. Federal Aviation Administration (FAA) regulations require you to have permission from a crew member to use your phone while the plane is on the ground. To prevent interference with cellular systems, FCC regulations prohibit using your phone while the plane is in the air.

Children

Do not allow children to play with your phone. It is not a toy. Children could hurt themselves or others (by poking themselves or others in the eye with the antenna for example). Children also could damage the phone, or make calls that increase your telephone bills.

Blasting Areas

To avoid interfering with blasting operations, turn your unit OFF when in a "blasting area" or in areas posted:"Turn off two-way radio". Construction crews often use remote control RF devices to set off explosives.

Potentially Explosive Atmospheres

Turn your phone OFF when in any area with a potentially explosive atmosphere. It is rare, but your phone or its accessories could generate sparks. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Areas with a potentially explosive atmosphere are often, but not always, clearly marked. They include fueling areas such as gas stations; below deck on boats; fuel or chemical transfer or storage facilities; areas where the air contains chemicals or particles, such as grain, dust, or metal powders; and any other area where you would normally be advised to turn off your vehicle engine.

Do not transport or store flammable gas, liquid, or explosives in the compartment of your vehicle which contains your phone or accessories.

Vehicles using liquefied petroleum gas (such as propane or butane) must comply with the National Fire Protection Standard (NFPA-58). For a copy of this standard, contact the National Fire Protection Association, One Batterymarch Park, Quincy, MA02269, Attn:Publication Sales Division.

Specifications

Signalling format	Complies with EIA specifications
Frequency range	Transmit: 824.040 to 848.970 MHz Receive : 869.040 to 893.970 MHz
Channel spacing	30 kHz
Number of channels	832
Frequency stability	±2.5 ppm at –22°F to +140°F (–30°C to +60°C)
RF output power	0.6 W
Power control	4 dB step down from 0.6 W
Power requirement	7.2 V DC
Battery life	Approx. 90 minutes (continuous talk) Approx. 24 hours (continuous standby)
Operating temperature	–22°F to +140°F (–30°C to +60°C) (excluding battery pack and display)
Battery pack charging temperature	+32°F to +104°F (+0°C to +40°C)
Dimensions	$2^1/_2 \times 3^9/_{16} \times 1^1/_8$ inches (W/H/D) (not including antenna) (64 × 90 × 29 mm)
Mass	Approx. 6.88 oz. (195 g) (including battery)
Supplied accessories	Battery Pack QN-022BP (1) Battery Charger QN-027BC (1) AC Adaptor QN-014AC (1) Hand Strap (1)

Design and specifications are subject to change without notice.

If You Have a Problem

Should any problem occur with your portable cellular telephone, use the following simple checklist to determine whether servicing is required. If the problem persists after you have made these checks, consult your nearest Sony Cellular Telephone dealer.

Problem	Cause/Remedy
The unit does not operate.	- Battery is not charged enough. - Battery is not installed correctly.
The phone call does not connect.	- You dialed a wrong number. - You did not press (SEND). - You did not open arm microphone. - System is busy. - The signal strength is not sufficient. - Your phone is not registered on the network.
Forgot lock code.	- Contact the Sony Cellular Hotline (see below).

Sony Cellular Hotline Number (USA only)

If you have any question or comments, please call:
SONY CELLULAR HOTLINE
1-800-578-SONY (7669)

Summary of Operation

[X] : Number key
Dial : Dial Shuttle
If you press Dial Shuttle for 1 second, the function menu automatically scrolls. Press any buttons except POWER switch to stop scrolling.
Mic : Arm Microphone

Making and Receiving a Call (when Mic is closed)

Keypad dialing	Phone number + open Mic
Quick dialing	[X][X] + open Mic
Speed dialing	Turn up Dial (or RECALL + [X][X]) + open Mic
Redialing	Turn down Dial + open Mic
Receiving a call	Open Mic
Ending a call	END or close Mic

Making and Receiving a Call (when Mic is open)

Keypad dialing	Phone number + SEND (or press Dial)
Quick dialing	[X][X] + SEND (or press Dial)
Speed dialing	Turn up Dial (or RECALL + [X][X]) + SEND (or press Dial)
Redialing	Turn down Dial + SEND (or press Dial)
Receiving a call	Any button except [POWER]
Ending a call	END or close Mic

Recalling a Number

Recalling own phone number	Press Dial + turn Dial (or 7PRS 2ABC) OR RECALL + #-
Recalling a memory location	Turn up Dial (or RECALL + [X][X])
Reviewing last No. dialed	Turn down Dial
Reviewing preferred memory	Turn Dial (or RECALL + *- *-)
Reviewing upper numbers	Press Dial + turn Dial (or 1 3DEF) + press Dial

Storing a Number in Memory

Quick/Speed dialing	Phone number + (Name) + STORE + [X][X]
Preferred memory	Phone number + (Name) + STORE + ✱– ✱–

Erasing a Memory Location

Quick/Speed memory	Recall phone number + press Dial + turn Dial (or 1 1) + press Dial + 1
All quick/Speed /Preferred memories	Press Dial + turn Dial (or 5 JKL 2 ABC) + press Dial + Lock code
All redialing memories	Press Dial + turn Dial (or 5 JKL 3 DEF) + press Dial + Lock code
Preferred memory	Recall preferred number + press Dial + turn Dial (or 1 1) + press Dial + 1

DTMF Transmission from Memory

Speed dialing (if you have stored a DTMF number)	(during a call) RECALL + [X][X] + press Dial + SEND

Volume Adjustment

Speaker (during a call)	Turn Dial up/down
Speaker (in standby mode)	Press Dial + turn Dial (or 0 OPER 4 GHI) + press Dial + turn Dial up/down
Ringer	Press Dial + turn Dial (or 0 OPER 1) + press Dial + turn Dial up/down
Key tone	Press Dial + turn Dial (or 0 OPER 3 DEF) + press Dial + turn Dial up/down

Call Timers

Talk timer	Press Dial + turn Dial (or 2 ABC 1 oz) + press 1 oz
Minute alert	Press Dial + turn Dial (or 2 ABC 2 ABC) + press 1 oz
Last call	Press Dial + turn Dial (or 2 ABC 3 DEF)
All calls	Press Dial + turn Dial (or 2 ABC 4 GHI)
New calls	Press Dial + turn Dial (or 2 ABC 5 JKL)
New calls clear	Press Dial + turn Dial (or 2 ABC 6 MNO) + press Dial + Lock code

General Functions

Clearing the last digit	CLEAR
Clearing all digits	CLEAR (hold for 1 sec) or END
Ringer type	Press Dial + turn Dial (or 0 OPER 2 ABC) + press 1 oz, 2 ABC, 3 DEF, 4 GHI or 5 JKL
Search order	Press Dial + turn Dial (or 1 oz 2 ABC) + press 1 oz (numerical) or 3 DEF (alphabetic)
Quick dialing	Press Dial + turn Dial (or 1 oz 4 GHI) + press 1 oz (on) or 3 DEF (off)
Auto redialing	Press Dial + turn Dial (or 1 oz 5 JKL) + press 1 oz (on) or 3 DEF (off)
Auto lock	Press Dial + turn Dial (or 4 GHI 1 oz) + press 1 oz (set) or 3 DEF (release) + Lock code
Lock code change	Press dial + turn Dial (or 4 GHI 2 ABC) + press Dial + Lock code + new Lock code
Speed dialing restriction	Press Dial + turn Dial (or 4 GHI 3 DEF) + press 1 oz (on) or 3 DEF (off) + Lock code
Clearing all set up	Press Dial + turn Dial (or 5 JKL 1 oz) + press Dial + Lock code
Selecting A/B system	Press Dial + turn Dial (or 6 MNO 1 oz) + press Dial + press 0 OPER (standard), 1 oz (A), 2 ABC (home), or 3 DEF (B)
Selecting NAM	Press Dial + turn Dial (or 6 MNO 2 ABC) + press 1 oz (NAM 1) or 2 ABC (NAM 2)

VOX setting	Press Dial + turn Dial (or 7 PRS 1 QZ) + press 1 QZ (on) or 3 DEF (off)
Preferred memory	Press Dial + turn Dial (or 7 PRS 3 DEF) + press 1 QZ (on) or 3 DEF (off)
Back light	Press Dial + turn Dial (or 7 PRS 4 GHI) + press 1 QZ (on) or 3 DEF (off)
Auto answer	Press Dial + turn Dial (or 7 PRS 5 JKL) + press 1 QZ (on) or 3 DEF (off)
Help displays	Press Dial + turn Dial (or 9 WXY 9 WXY) + press Dial + turn Dial

Function Table

Code	Display	Description	Page
F01	Ringer Vol.	You can set the ringer volume to four levels including off.	27
F02	Ringer Type 1-5 →[No.1]	You can select a tone pattern from five patterns.	52
F03	Key Vol.	You can set the key tone volume to four levels including off.	28
F04	Speaker Vol.	You can adjust the volume to seven levels during a call and standby mode.	26
F11	Memory Erase = →	You can delete a speed dialing memory and preferred memory which you need no more.	39
F12	Search Mode 123/ABC	You can search stored numbers in numerical or alphabetical order.	53
F13	Upper Digit Display = →	You can display the upper hidden numbers.	25
F14	Quick Dial On / Off	Sets the phone so that you do not need to press (RECALL) when you recall a stored number.	37
F15	Auto Redial On / Off	Except when the line is busy, the auto redial function tries to make the call again.	18
F21	Talk Timer On / Off	You can check the talk time during a call.	44
F22	Min. Alert On / Off	The phone can beep after the first 50 seconds of a call, and then every minute.	47
F23	Last Time XXmXXs	You can check the time of the last call.	45
F24	All Calls XXhXXmXXs	You can check the total call time of both NAMs.	45
F25	New Calls XXmXXs	You can check the total call time of the currently selected NAM since you last reset this timer.	46
F26	New Calls Clear	To reset New Calls timer.	46
F41	Auto Lock On/Off	You can lock your phone to prevent it from being used by other persons.	42
F42	Lock Code Change	You can change the lock code to any number you like.	43
F43	Restriction On / Off	The available speed dialing memory locations are restricted to 01-09.	54

Code	Display	Description	Page
F51	User Set Up All Clear =	All the settings set by user can be reset to the default settings.	55
F52	All Memory Erase =	You can delete a speed dialing memories at a time.	56
F53	Redial Mem. All Erase	You can delete all the five dialed numbers at a time.	24
F61	System select =	You can select a system mode.	50
F62	NAM Select 1 / 2	You can register two different cellular systems, allowing you to switch between the two NAMs.	49
F71	VOX Mode On / Off	Prolongs battery life by activating transmission power only when you are speaking.	48
F72	Own Number	The display shows your phone number.	21
F73	Prefer Mem. On / Off	You can set the phone so that the preferred number appears each time the power is turned on.	57
F74	Back Light On / Off	You can turn the backlighting of the displayed keypad on in a car.	58
F75	Auto Answer On / Off	You can set the phone so that it answers a call automatically in a car.	59
F99	Help Disp. Select =	You can view help displays.	60

Note

The menus "F74 Back Light" and "F75 Auto Answer" are displayed only when the related accessories are connected to the phone.

SONY

Quick Reference CM-RX100

Mic : Arm microphone
(X)(X): Number buttons for memory location

Making a Call		
Mic closed		Phone number + Open Mic
Mic open		Phone number + (SEND)
Receiving a Call		
Mic closed		Open Mic
Mic open		Press any key except (POWER)
Redialing		
Mic closed		Turn Dial Shuttle down + Open Mic
Mic open		Turn Dial Shuttle down + (SEND)
Ending a Call		(END) or close Mic
Speed Dialing		
Storing		Phone number (+ (ABC) + name) + (STORE) + (X)(X)
Searching		•Turn Dial Shuttle up in standby mode •Directly recalling : (RECALL) + (X)(X)
Dialing	Mic closed	(RECALL) + (X)(X) + Open Mic
	Mic open	(RECALL) + (X)(X) + (SEND)

SONY

Quick Reference CM-RX100

Mic : Arm microphone
(X)(X): Number buttons for memory location

Making a Call		
Mic closed		Phone number + Open Mic
Mic open		Phone number + (SEND)
Receiving a Call		
Mic closed		Open Mic
Mic open		Press any key except (POWER)
Redialing		
Mic closed		Turn Dial Shuttle down + Open Mic
Mic open		Turn Dial Shuttle down + (SEND)
Ending a Call		(END) or close Mic
Speed Dialing		
Storing		Phone number (+ (ABC) + name) + (STORE) + (X)(X)
Searching		•Turn Dial Shuttle up in standby mode •Directly recalling : (RECALL) + (X)(X)
Dialing	Mic closed	(RECALL) + (X)(X) + Open Mic
	Mic open	(RECALL) + (X)(X) + (SEND)

Note Cut along the dotted line. We have given you one spare.

Volume Adjustment	
Speaker (during call)	Turn Dial Shuttle up/down
Speaker (in standby mode)	Press Dial Shuttle + Turn Dial Shuttle up/down (select menu) + Press Dial Shuttle + Turn Dial Shuttle up/down
Ringer	
Key Tone	
Scratchpad	Enter the number during the call
Own phone number display	(RECALL) + (#→)
Auto Lock	
Setting	Press Dial Shuttle + (4)(1) + (1) + 4 digit lock code
Releasing	Press Dial Shuttle + (4)(1) + (3) + 4 digit lock code
Selecting Search Order	Press Dial Shuttle + (1)(2) + (1) or (3)
Help Display	Press Dial Shuttle + (9)(9) + Press Dial Shuttle + Turn Dial Shuttle
Sending DTMF from Memory (during a call)	(RECALL) + (X)(X) + Press Dial Shuttle + (SEND)
Selecting A/B System	Press Dial Shuttle + (6)(1) + Press Dial Shuttle + (0), (1), (2) or (3)
Selecting NAM	Press Dial Shuttle + (6)(2) + (1) or (2)

Volume Adjustment	
Speaker (during call)	Turn Dial Shuttle up/down
Speaker (in standby mode)	Press Dial Shuttle + Turn Dial Shuttle up/down (select menu) + Press Dial Shuttle + Turn Dial Shuttle up/down
Ringer	
Key Tone	
Scratchpad	Enter the number during the call
Own phone number display	(RECALL) + (#→)
Auto Lock	
Setting	Press Dial Shuttle + (4)(1) + (1) + 4 digit lock code
Releasing	Press Dial Shuttle + (4)(1) + (3) + 4 digit lock code
Selecting Search Order	Press Dial Shuttle + (1)(2) + (1) or (3)
Help Display	Press Dial Shuttle + (9)(9) + Press Dial Shuttle + Turn Dial Shuttle
Sending DTMF from Memory (during a call)	(RECALL) + (X)(X) + Press Dial Shuttle + (SEND)
Selecting A/B System	Press Dial Shuttle + (6)(1) + Press Dial Shuttle + (0), (1), (2) or (3)
Selecting NAM	Press Dial Shuttle + (6)(2) + (1) or (2)

Index

A

A-only ... 50
A/B system ... 50
    selecting ... 51
ABC button ... 7,32,33,36
ABC icon ... 8,32,36
AC Adaptor ... 5,10
Aircraft ... 65
All calls ... 45
Antenna ... 7,14,15
    care and replacement ... 64
Antenna socket ... 7
Arm Microphone ... 7,14-20,22,23,34-37,41
    using ... 15
Auto answer
    turning on/off ... 59
Auto lock
    setting ... 42
    releasing ... 43
Auto redial ... 18

B

B-only ... 50
Backlight
    turning on/off ... 58
Battery alarm ... 12
Battery Charger ... 5,10,11
Battery cover ... 7,9
Battery cover release button ... 7,9
Battery icon ... 8,12
Battery Pack ... 5
    charging ... 10,11
    checking ... 12
    disposal ... 11
    installing ... 9
Blasting areas ... 65
Buttons ... 6-7
    ABC button ... 33,36
    CLEAR button ... 16,17,30,38
    END button ... 16-20
    POWER switch ... 14,15
    RECALL button ... 21,34-41
    SEND button ... 17,23,29,35,40-41,68
    STORE button ... 30-32,38,40

C

Calls
    auto answer ... 59
    auto redial ... 18
    making ... 16-18
    receiving ... 19,20
    redialing ... 22-23
    unsuccessful ... 18
Car Battery Cord ... 7
Child safety ... 65
CLEAR button ... 7,16,17,30,38
Connector ... 7
Continuous talk mode ... 12

D

Dial Shuttle ... 6,17,18,21-28,32-60
Dialed memories ... 22-24
    erasing ... 24
Display ... 8
Driving ... 64
DTMF
    sending ... 40-41
    storing ... 40
DUAL NAM
    selecting ... 49

E

Efficient phone operation ... 48,63,64
END button ... 7,16-20
Entering letters ... 33
Explosive atmospheres ... 66

F

Function Table ... 73-74

H

Hand Strap ... 5
    attaching ... 5
Handsfree Kit ... 58,59,64
Help ... 60
Home-only ... 50

I

Icons ... 8
    ABC ... 32,36
    battery ... 12
    in use ... 16,17,19,20
    out of service ... 16,19
    roaming ... 50
    signal strength ... 15
In use icon ... 8,16,17,19,20
Incoming indicator ... 6,19
Interference ... 62

L

Last call ... 45
License ... 61
Lock code ... 13
    changing ... 43

M

Memory location ... 30-33
Minute alert ... 47

N

NAM ... 49
New calls ... 46

O

On-line services ... 40
Other functions ... 52-60
Out of service icon ... 8,16,19
Overwrite ... 31
Own phone number
    displaying ... 21

P

Pause ... 40
Power off ... 15
Power on ... 14
POWER switch ... 6,14,15
Preferred memory
    recalling ... 57
    storing ... 57
    turning on ... 57
Privacy ... 62
Problem ... 68

Q

Quick dialing ... 37
Quick Reference ... 75,76

R

Radio Frequency energy ... 63
RECALL button ... 7,21,34-41,57
Redialing ... 22-23
Redial memory ... 24
Ring escalate ... 27
Ringer ... 7,19,20,26,27,52,55
    volume ... 27-28

Ringer type
selecting ... 52
Roaming icon ... 8,50
Rules and Regulations ... 61-62
License ... 61

S

Safety ... 63-66
aircraft ... 65
blasting areas ... 65
children ... 65
driving ... 64
explosive atmospheres ... 66
Saving power ... 48,63,64
Scratchpad ... 29
Search order ... 36
selecting ... 53
SEND button ... 7,17,23,29,35,40,41,68
Signal strength icon ... 8,15
Sony service center ... 11
Speaker ... 7,19,26,27,55
volume ... 26,27
Specifications ... 67
Speed dialing ... 34,35
Speed dialing memory ... 32
changing ... 38
erasing ... 39
restricting ... 54
scrolling ... 36
storing ... 30-33
Standby mode ... 12
STORE button ... 7,30-32,38,40
Summary of operation ... 69-72

T

Talk time
display ... 19,20,44
last call ... 45
Total time of all calls ... 45
Total time of new calls ... 46
resetting ... 46

U

Upper numbers ... 25
User set up
clearing ... 55

V

Volumes ... 26-28
key tone ... 28
ringer ... 27
speaker ... 26
VOX ... 48